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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/777,378	02/06/2001	Hiroaki Kitamoto	Kanzaki Case 161	8381

7590 09/24/2003
FLYNN, THIEL, BOUTELL & TANIS, P.C.
2026 Rambling Road
Kalamazoo, MI 49008-1699

EXAMINER

NASH, BRIAN D

ART UNIT	PAPER NUMBER
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3721

DATE MAILED: 09/24/2003

13

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/777,378

Applicant(s)

KITAMOTO, HIROAKI

Examiner

Brian D Nash

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 August 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 11-15 and 17-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 11-15 and 17-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 February 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. This action is in response to applicant's amendment and request for continued examination received 11 August 2003. It is acknowledged that applicant has cancelled claims 10 and 16, amended claims 11-15 and 17-20, and added new claims 21 and 22. The pending claims are now 11-15 and 17-22.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 11-12, 14, 17, 19 and 21-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 2050243 to Yukiari et al in view of US 5,321,935 to Spatz et al. Yukiari et al disclose an apparatus including a capping device having a capping head (4) that clamps a cap (5), vertically places the cap onto a vessel (1), and rotates the cap counterclockwise with respect to the vessel such that threads on the cap and the vessel are not engaged with each other and an incipient position of meshing engagement between the cap and the vessel are determined. Yukiari also discloses rotating the cap in a clamping direction by a predetermined rotational angle with respect to the incipient position of meshing engagement (see translated abstract of Yukiari patent). Yukiari does not measure the torque acting on the cap when the incipient position of meshing engagement is determined, but rather registers the position using a controller

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that stores the physical position via a position detector. However, Spatz et al teaches an apparatus and method wherein a change in force on the cap, i.e. torque on the cap, is measured (3,13,15,17), while rotating the cap (3) to a predetermined torque (see column 4, lines 10-43) through at least one complete revolution (see column 5, lines 4-6), and stops rotation after predetermined torque is achieved; comprising an elevating means (see column 4, lines 3-12), a measuring means(13), an angle detection means (17), and a control means (19); wherein the acting force is a rotational force.

It would have been obvious to one having ordinary skill in the art at the time of the invention to have combined the apparatus and method of Yukiari et al with that of Spatz et al in order to register the incipient position of meshing engagement via a torque calculation between the cap and vessel threads as opposed to a position detector so that damage to either the cap or vessel threads can be avoided by preventing too much torque being applied to each.

4. Claims 13, 15, 18, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 2050243 to Yukiari et al and US 5,321,935 to Spatz et al as applied to claims 11-12, 14, 17, 19 and 21-22 above, and further in view of US 5,685,552 to Barca. As discussed above in paragraph 3 of this office action, Yukiari et al and Spatz et al disclose the claimed invention but do not include rotating the cap in the clamping direction during its descent or measuring a vertical load acting on the cap.

However, Barca teaches measuring the axial load on the cap (see Barca, column 1, line 65 – column 2, line 4) and the use of adapter to rotate the screwhead in the clamping direction while descending the cap toward the container in order to minimize the creation of particulate matter.

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In view of Barca, it would have been obvious to one having ordinary skill in the art to have provided the adapter for measuring axial loads on the cap and rotating the screwhead in the clamping direction while descending toward the container for the purposes of eliminating or minimizing the creation of particulate matter and improve the efficiency of installing threaded plastic caps.

Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian Nash whose telephone number is (703) 305-4959. The examiner can normally be reached on Monday – Thursday from 8 a.m. to 5 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rinaldi I. Rada can be reached at (703) 308-2187.

The fax numbers for this Group are:

Before Final	703-872-9302
After Final	703-872-9303
Customer Service	703-872-9301

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-1148.

Brian D. Nash
16 September 2003



Mickey Yu
Supervisory Patent Examiner
Group 3700